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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,388	09/15/2005	Carlo Zinato	05222-PCT-PA	1935
72468 7590 01/24/2008 HODES, PESSIN & KATZ, P.A. 901 DULANEY VALLY ROAD, SUITE 400 BALTIMORE, MD 21204			EXAMINER MILLIKIN, ANDREW R	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/549,388	<b>Applicant(s)</b> ZINATO, CARLO	
	<b>Examiner</b> Andrew Millikin	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☐ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 22-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because Figs. 18 and 19 both have their y-axis labeled "RATE." It appears to the examiner that the y-axis of Fig. 19 should be labeled something along the lines of "LEVEL," since "RATE," in the context of the application, appears to refer to the slope of the graph presented in Fig. 19, not the y-axis. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figure 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (the specification refers to this figure as being drawn from "the literature on the generation of sounds of instruments with continuous sound emission"). See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities: it appears that page 11, starting with "The literature on generation," through page 13, ending with "high-polyphony electronic musical instruments, such as church organs" describes background information, and as such, should be provided in the "BACKGROUND OF THE INVENTION" section, as detailed above.

Appropriate correction is required.

### ***Claim Objections***

4. Claims 23-27 are objected to because of the following informalities: in claim 22, the method claimed is described as "consisting" of several presented steps. The word "consists" is interpreted to limit the scope of the claim to only the presented steps. Therefore, dependent claims cannot add any other elements or steps. Examiner recommends amending claim 1 from "--method suitable for church organ flue pipes' sound synthesis which consists in:--" to "--method suitable for church organ flue pipes' sound synthesis comprising:--". See MPEP 2111.03. As "consists" and "comprises" are

used throughout the claims, it is recommended that Applicant consider amending other claims in view of MPEP 2111.03. Appropriate correction is required.

5. Claims 22 & 27-32 are objected to because of the following informalities: in claim 27, the phrase "--wherein said harmonic sequence and (NOISE) sequence processing step through a linear resonator consists in supplying--" appears to have improper grammatical structure. Examiner recommends amending this phrase to read something like "--wherein said harmonic sequence and (NOISE) sequence processing step includes a linear resonator and consists in supplying--", keeping in mind the meaning of "consists" as described in MPEP 2111.03.

6. In claim 22, it appears that "processing said limited rate sequence," should be followed by "and". In claim 28, it appears that "generate a sequence (NOISE)" should be followed by "and". In claim 29, it appears that "generators outputs'," should be followed by "and". In claim 30, it appears that "a sinusoidal generator," should be followed by "and". In claim 31, it appears that "random sequence generator," should be followed by "and". In claim 32, it appears that "said noise generator (11)," should be followed by "and". It is possible other grammatical corrections need to be made in the claims that the Examiner has not noticed. Appropriate correction is required.

#### ***Allowable Subject Matter***

7. Claims 22-32 appear to be allowable, assuming the amendments suggested above are carried out and no other substantial amendments are made to the claims that might change the meaning or scope of the claims. As allowable subject matter has been

indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

8. The following is a statement of reasons for the indication of allowable subject matter: the claims describe a "rate limiter (42)," which is defined in the specification as either the "RATE LIMITER" shown in Fig. 12 or "a linear filter, whose gain has a progression described by the same sequence RATE generated by the architecture of Fig. 10," an example of the sequence "RATE" being shown in Fig. 18. The prior art of record does not fairly teach or suggest using the circuits shown in Figs. 10 & 12 in the context of a physical modeling synthesizer, nor does it teach using "a linear filter, whose gain has a progression described by the same sequence RATE generated by the architecture of Fig. 10" (i.e., a sequence like that shown in Fig. 18). Further, the prior art of record does not fairly teach or suggest limiting the rate (i.e., slope) of a random sequence a way similar to that shown in Fig. 19.

### ***Conclusion***

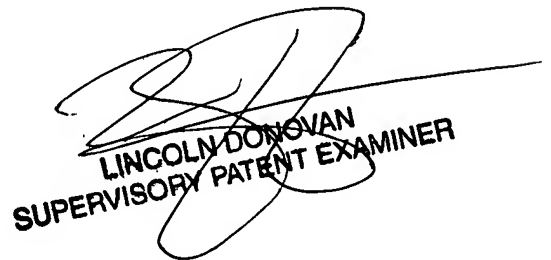
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Millikin whose telephone number is 571-270-1265. The examiner can normally be reached on M-R 7:30-5 and 7:30-4 Alternating Fridays (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'ARM'.A handwritten signature in black ink, appearing to be 'L. Donovan', with a stamp below it that reads 'LINCOLN DONOVAN' and 'SUPERVISORY PATENT EXAMINER'.